UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

October 29, 2015

Anne Morkill
Don Edwards San Francisco Bay National Wildlife Refuge
1 Marshlands Road
Fremont, California 94555

Subject: Draft Environmental Impact Statement/Report (DEIS/R) for the South Bay Salt Pond Restoration Project, Phase 2 (CEQ # 20150200)

Dear Ms. Morkill:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA supports the restoration actions evaluated in this DEIS, which tiers from the 2007 Program-level EIS for the 15,100 acre South Bay Restoration Project. This project-level DEIS evaluates Phase 2, which proposes restoration of over 2,000 acres of former salt ponds in four distinct pond complexes. While the actions of breaching and lowering levees and creating islands and habitat transition zones would constitute fill in jurisdictional waters, the conversion from salt production ponds to tidal marsh would result in a substantial increase in wetland habitat. EPA agrees that it is critical to maximize the overall ecosystem potential for this area by transitioning open water salt ponds designated as waters of the U.S. to higher quality tidal marsh wetland habitat.

For each of the four pond complexes evaluated in the DEIS – particularly Alviso-A-8 Ponds under Alternative B, and ponds A1, A2W, and R4 – we recommend selection of designs that target the creation of broad levee slopes that would enable wetlands to adapt to sea level rise. This is consistent with the scientific consensus of the Baylands Ecosystem Habitat Goals Science Update 2015, which seeks to maximize baylands resilience by restoring complete wetland systems with many interconnected habitat types (See: Goals Project. 2015. *The Baylands and Climate Change: What We Can Do. Baylands Ecosystem Habitat Goals Science Update 2015,* prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. California State Coastal Conservancy, Oakland, CA). In addition, we recommend selection of Alternative Alviso-Mountain View C, which incorporates Charleston Slough into the tidal marsh restoration. This alternative offers the best opportunity to progress towards the ecosystem-wide restoration goal of 100,000 acres of tidal wetlands called for in the original Baylands Ecosystem Habitat Goals Report (See: Goals Project. 1999. *Baylands Ecosystem Habitat Goals. A report of habitat recommendations prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project.* U.S. Environmental Protection Agency, San Francisco, CA/S.F. Bay Regional Water Quality Control Board, Oakland, CA).

The DEIS does not identify a preferred alternative for any of the pond complexes; therefore, pursuant to EPA's *Policy and Procedures for the Review of Federal Actions Impacting the Environment*, we are

rating individual alternatives evaluated in the DEIS. While EPA supports the restoration of the Ravenswood ponds, we are rating Alternative Ravenswood D, which would create a connection to receive peak stormwater flows from Redwood City, as *Environmental Concerns – Insufficient Information* (EC-2). We are concerned that, because the stormwater quality has not been completely characterized, it is not known whether pollutants present in stormwater would be detrimental to the restoration. EPA recommends that a stormwater characterization sampling plan be developed as part of this alternative. We are rating all other alternatives in the DEIS as *Lack of Objections* (LO). Our enclosed detailed comments include additional suggestions to improve the impact assessment.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Sam Schuchat, CA Coastal Conservancy
Brian Wines, SF Bay Regional Water Board
Tori White, U.S. Army Corps of Engineers
Ahmad Haya, City of Redwood City
Raymond Wong, City of Mountain View
Azalea Mitch, City of Menlo Park

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category "1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category "2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category "3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

Alviso-Mountain View Pond Cluster

EPA supports Alternative Alviso-Mountain View C, which incorporates Charleston Slough into the restoration of the former salt ponds to tidal marsh. The Charleston Slough area, owned by the City of Mountain View, is a mitigation area intended to be restored to tidal marsh per a Bay Conservation Development Commission permit issued in 1978. The area has failed to achieve functionality as tidal marsh, in part because of poor circulation with Bay waters, which would be resolved upon breaching the slough's levees to join with the other ponds slated for restoration. Incorporating Charleston Slough into the restoration would make this currently fragmented habitat part of a connected system including subtidal, wetland and upland habitats that would benefit species of concern and allow species to adapt and move to other parts of the connected system, as needed. Including Charleston Slough in the restoration would also incorporate a new levee height that is protective to 14 feet of sea level rise (the highest estimate from the City of Mountain View's 2012 sea level rise study[1]), thereby improving flood protection in that area. This alternative includes construction of a new water intake at the proposed breach between Pond A1 and Charleston Slough; however, the risk of fish entrainment is not discussed nor does the project description identify how entrainment would be avoided.

> *Recommendation:* For the Alviso-Mountain View Ponds complex, designate Alternative Alviso-Mountain View C as the preferred alternative in the Final EIS (FEIS). Provide further details on the proposed new water intake associated with this alternative to demonstrate that it would be constructed with appropriate screening, per National Marine Fisheries Service guidance[2], to prevent fish entrainment.

Ravenswood Pond Cluster

Alternative Ravenswood D would allow peak stormwater runoff from occasional large storms to be temporarily diverted from the Bayfront Canal and Atherton Channel into Ponds S5 and R5 to help reduce existing salinity conditions in these ponds (p. 2-55). This connection would also reduce flood risk in the neighborhood to the southwest. The ponds would be drawn down to provide capacity for temporary detention of stormwater runoff from Redwood City. Stormwater would enter into Pond S5 through new water control structures that would be installed to connect the Redwood City storm drain outflow to the forebay of Pond S5. This stormwater would then be discharged back into Flood Slough through a new water control structure between the pond and the slough when the tide is low and the slough can accept the volume of stormwater.

While EPA supports the multiple benefits of Alternative Ravenswood D, which would include stormwater management in addition to habitat restoration and flood protection, we are concerned that the stormwater has not been sufficiently characterized. The DEIS indicates that this alternative would have less than significant impacts; however, in the absence of water quality data, no assurance is provided that pollutants present in stormwater would not be detrimental to the habitat restoration. As the DEIS indicates for this alternative, stormwater inflow would increase circulation after heavy rains, but may also contribute additional nutrients (p. 3.3-39). According to the DEIS, urban runoff in the

[1] ESA PWA Consultants. *Shoreline Regional Park Community: Sea Level Rise Study, Feasibility Report and Capital Improvement Program*. Prepared for City of Mountain View, CIP 12-48. December 18, 2012.

[2] See NMFS guidance at: http://www.westcoast.fisheries.noaa.gov/publications/hydropower/southwest_region_1997_fish_screen_design_criteria.pdf and http://www.westcoast.fisheries.noaa.gov/publications/hydropower/fish_screen_criteria_for_pumped_water_intakes.pdf

South Bay has been shown to have contaminants such as polynuclear aromatic hydrocarbons, metals (copper and zinc) and urban pesticides (diazinon, pyrethroids) (p. 3.3-47). The DEIS indicates that the project proponents will notify the appropriate urban runoff program of breaches that will introduce urban discharges into the project area and request that the urban runoff program consider those changes when developing annual monitoring plans, but no plans to characterize the water quality as part of the impact assessment appear to be included.

> *Recommendation:* Characterize the stormwater that would be diverted to the ponds under Alternative Ravenswood D and provide this information in the FEIS. We recommend that a stormwater characterization sampling plan be developed and carried out that would provide permitting agencies with a data set representative of waters from high flow events that would likely be retained in the pond under this alternative. If an alternative means of assessing the extent to which stormwater would introduce pollutants to the pond complex is pursued, describe it and provide the results in the FEIS. If such sampling or assessment does not take place during the NEPA process and Alternative Ravenswood D is selected, we recommend that its selection be conditioned on the provision and review of water quality data prior to project implementation.

Beneficial Reuse of Dredged Material

The project would require the import of hundreds of thousands of cubic yards of fill material, primarily for the Alviso-Mountain View alternatives and Ravenswood Alternative C (Table 2-3, p. 2-13), to enhance levees, fill borrow ditches, build habitat transition zones and create habitat islands. The DEIS states that dredged material may be used for the project; however, because a feasible delivery plan and regulatory clearance would be needed before this component could be implemented, the DEIS does not include or analyze the effects of beneficial reuse of dredged material as part of this project (p. 2-20). We understand that a beneficial reuse feasibility study has been prepared and is available on the project website but there is no indication in the DEIS whether beneficial reuse will be actively pursued.

> *Recommendation:* In the FEIS, identify the use of dredged material as first priority, with a commitment to research the availability of such material prior to project implementation. Briefly summarize the results of the feasibility study and specify which actions will be taken to promote beneficial reuse for this phase of the project. For example, indicate whether a Memorandum of Understanding, identified as necessary for beneficial reuse in the feasibility study, will be pursued.

Air Quality Impacts

The analysis in the DEIS assumes the import of upland fill, transported by trucks (p. 3.12-14), and predicts that 57,000 one-way truck trips would be required to fulfill the high-end estimate of total fill required for all Phase 2 alternatives. For air quality impacts, the analysis addresses the transportation of the material from the nearest highway or major arterial to the ponds where it would be used because it assumes that, in the absence of the restoration project, the material would be generated and transported to a landfill or other disposal site (p. 3.12-14). For this to be an accurate assumption, the project proponents must commit to utilizing only fill destined for disposal and not fill obtained from an off-site borrow site.

> *Recommendation:* If upland fill will be pursued, we recommend that the project proponents specify, in contract documents, that all upland material must be derived from construction sites and not obtained from an off-site borrow area. If a borrow area would be utilized, additional

NEPA analysis should be performed to capture the total air emissions from the truck trips and any other impacts to the borrow area.

Induced Growth

The project would result in increased flood protection under some alternatives. For example, the DEIS indicates that for Alviso-Mountain View Alternative C, the City of Mountain View would assist in raising and improving the levees bordering Charleston Slough to levels beyond that required of the South Bay Salt Pond Restoration Project (p. 3.2-25). The DEIS also mentions the possibility that levees would be improved to provide Federal Emergency Management Agency (FEMA) 100-yr flood protection (p. 2-38). It is not clear whether this increased flood protection would induce additional growth in the areas protected by the levees. Potential impacts from induced growth are considered indirect impacts that should be evaluated in the impact assessment (40 CFR 1508.8(b)).

Recommendations: In the FEIS, discuss the potential for further development in the areas that would receive additional flood protection as a result of the project. The impacts of any projects that would not go forward but for the additional flood protection should be assessed in the FEIS.

Invasive Species Control Plan

EPA has reviewed the Best Management Practices (BMPs) in Appendix K related to control of nonnative *Spartina* cordgrass as it relates to tidal marsh restoration at the project site. The BMPs provide thorough technical guidance on ways to minimize further invasion of tidal wetlands by hybridized *Spartina* species; however, the costs of implementing those BMPs are not discussed. Cost is an important factor resource managers should take into account when assessing the feasibility of all actions that are part of making a restoration project successful.

Recommendation: Ensure that costs are appropriately considered, in accordance with the process outlined in BMP #9, when planning for invasive species control.

Water Quality Impacts

The impact assessment relies on adaptive management monitoring to address certain water quality impacts. EPA supports this approach. For example, San Francisco Bay is impaired for mercury, thus it is appropriate that the uncertainties related to the complex linkage between inorganic and methylmercury in the Bay and adjacent tidal marshes be monitored to inform future restoration decisions. Additionally, monitoring for nutrients, an emerging water quality issue in San Francisco Bay, is important, since intricate interactions make it difficult to predict specific ecosystem responses to these pollutants. In general, however, tidal marshes and transition zones can uptake nutrients at a high rate. This was not disclosed in the DEIS.

Recommendation: Continue the mercury-focused studies in the project monitoring program so that management actions can be taken to avoid environmental conditions that increase mercury methylation and bioaccumulation. Discuss the nutrient uptake potential of tidal marshes and transition zones in the FEIS, as appropriate.

Special Status Species

EPA supports the goals of recovering target special status species, such as California Ridgway's rail, Western snowy plover, and the salt marsh harvest mouse, for those alternatives that maximize ecotone/transition zones and ecosystem-wide habitat connectivity. While the DEIS cites the U.S. Fish and Wildlife Service's *Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California*

(p. 3.8-12) and indicates that Endangered Species Act (ESA) consultation will occur and concurrence with the U.S. Fish and Wildlife Service will be obtained prior to construction of Phase 2 projects (p. 5-3), the DEIS does not state whether the alternatives would meet the objectives identified in the Recovery Plan.

Recommendation: Ensure that the alternatives analysis in the FEIS is consistent with the stated objectives in the Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California.